

West Lafayette Air Monitoring Study, April-September 2007

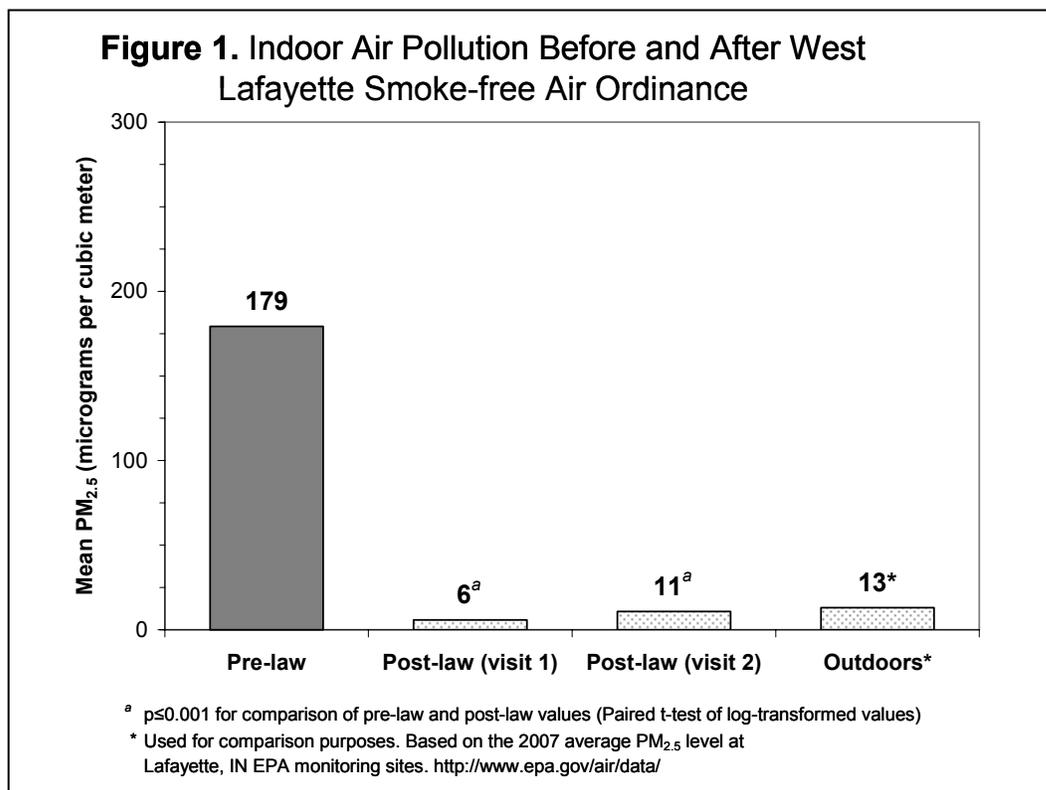
Secondhand smoke (SHS) is a known human carcinogenⁱ, and is responsible for an estimated 50,000 deaths and other illnesses each yearⁱⁱ. Secondhand smoke exposure remains a major public health concern, although it is entirely preventable^{iii,iv}.

Policies requiring smoke free environments are the most effective method for reducing secondhand smoke exposure in public places^v. Currently, 27 states have enacted smoke free workplace laws, which represent approximately 60% of the U.S. population^{vi}.

In order to protect the public's health, the U.S. Environmental Protection Agency (EPA) has set limits of 15 $\mu\text{g}/\text{m}^3$ as the average annual level of $\text{PM}_{2.5}$ exposure and 35 $\mu\text{g}/\text{m}^3$ 24-hour exposure. $\text{PM}_{2.5}$ is the concentration of particulate matter in the air smaller than 2.5 microns in diameter. Particles of this size are released in significant amounts from burning cigarettes and are easily inhaled deep into the lungs.

The study assessed indoor air quality in 7 West Lafayette bars and restaurants once before and twice after the implementation of the West Lafayette smoke-free air law on July 1, 2007.

The overall results should the average level of fine particle indoor air pollution declined 94% after the West Lafayette ordinance went into effect in those venues that went smoke-free as a result of the law.



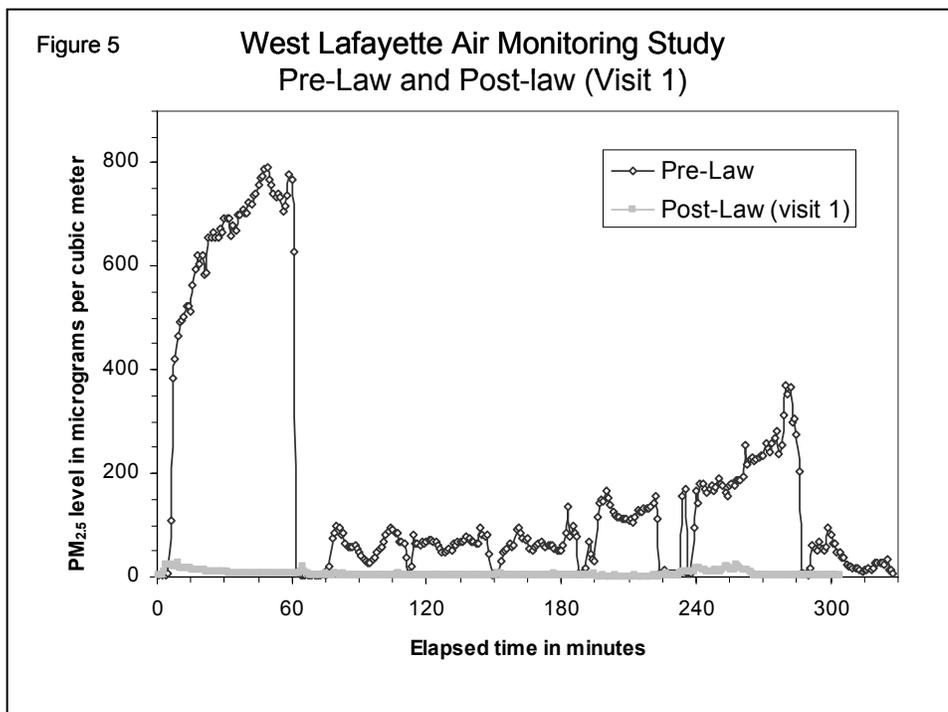
For more information about the study or the full report please contact Indiana Tobacco Prevention and Cessation at 317-234-1787.

Study Highlights

- The average level of fine particle indoor air pollution declined 94% after the West Lafayette ordinance went into effect in those venues that went smoke-free as a result of the law.
- Compliance with the law during the 14 post-law visits was 93%, as smoking was observed inside during only one post-law visit.
- Before the law, employees in sampled locations were exposed to unhealthy air according to U.S. Environmental Protection Agency (EPA) standards. They now work in environments with safe levels of fine particle air pollution.

Before implementation of the West Lafayette smoke-free air ordinance, locations allowing indoor smoking were significantly more polluted than outdoor air in Lafayette, with levels of pollution in excess of EPA standards. As a result of the West Lafayette ordinance, air quality is dramatically improved for workers and patrons of those hospitality venues where indoor smoking became prohibited.

Graph showing indoor air pollution levels before and after July 1, 2007 and the implementation of the smoke free workplace law.



- ⁱ. National Toxicology Program. 9th Report on Carcinogens 2000. Research Triangle Park, NC: U.S. Department of Health and Human Services, National Institute of Environmental Health Sciences; 2000.
- ⁱⁱ. CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs – United States, 1995-1999; MMWR 2002;51(14):300-320.
- ⁱⁱⁱ. Second national report on human exposure to environmental chemicals. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Environmental Health, 2003.
- ^{iv}. U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Washington, D.C.: US Government Printing Office, 2000.
- ^v. Hopkins DP, Briss PA, Ricard CJ, Husten CG, Carande-Kulis VG, Fielding JE, et al. Reviews of evidence regarding interventions to reduce tobacco use and exposure to environmental tobacco smoke. *Am J Prev Med* 2001;20(2 Suppl):16-66.
- ^{vi}. Americans for Nonsmokers' Rights, January 2, 2008.